# OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD

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Attachment No. 2

#### **INITIAL STATEMENT OF REASONS**

#### CALIFORNIA CODE OF REGULATIONS

TITLE 8: Chapter 4, Subchapter 7, Article 10, Section 3381 of the General Industry Safety Orders (GISO)

#### **Head Protection**

# **SUMMARY**

Section 3381 of the GISO requires employees to wear head protection when exposed to falling objects, flying objects, and/or electric shock. Section 3381 further requires that head protection comply with specified American National Standards Institute (ANSI) standards, which classify protective helmets according to the impact and electrical resistance requirements they are designed to meet. The ANSI standards incorporated into Section 3381 by reference have been superseded by the current ANSI standard for Industrial Head Protection, ANSI Z89.1-1997. In the 1997 ANSI standard, the electrical insulation classifications of Class G (General); Class E (Electrical); and Class C (conductive – no electrical protection) replace the former Classes A, B and C, respectively. Section 3381 relies on the old ANSI designations to specify the classes of protective helmets that are required to be used, and does not allow the use of protective helmets designated Class C, E or G.

The Occupational Safety and Health Standards Board (Board) staff initiated this rulemaking to update the ANSI reference for head protection allowing the use of additional classes of ANSI approved protective helmets, where appropriate, and to require helmets to comply with the current ANSI standard for head protection when they are first placed in service.

#### SPECIFIC PURPOSE AND FACTUAL BASIS OF PROPOSED ACTION

# Subsection (a)

Existing subsection (a) requires that employees exposed to flying or falling objects and/or electric shock or burns shall be safeguarded by means of approved head protection. Revised language is proposed to clarify the nature of the exposure and the means of safeguarding. The proposal adds language to clarify that the impact and electrical hazards, which require the use of head protection, are those that specifically expose employees to a risk of receiving head injuries. The proposal specifies that affected employees "wear" head protection to more clearly and simply state what is the only acceptable means of safeguarding employees. This revision is necessary to improve

clarity and to be more consistent with the federal counterpart standard and Section 3382, Eye and Face Protection, which both rely on language similar to the proposal.

# Subsection (b)

Existing subsections (b)(1), (b)(2) and (c) contain the criteria for selection and use of head protection. There is no subsection (b). A new subsection (b) is proposed to incorporate the criteria for selection and use of head protection that are contained in revised subsections (b)(1) and (b)(2). This revision is necessary to letter subsections in the proper sequential order.

# Subsection (b)(1)

Existing subsection (b)(1) requires that helmets purchased after January 12, 1995, and used to protect employees from impact and low voltage electrical hazards shall comply with ANSI Z89.1-1986, Class A or Class B protective headwear. The 1986 ANSI standard was the most current version of Z89.1 when the last revision of Section 3381 became effective on January 12, 1995, and was incorporated into subsection (b)(1) by reference. The proposal incorporates ANSI Z89.1-1997 by reference and requires that all helmets placed in service after the proposal's effective date shall comply with ANSI Z89.1-1997, which is the most current publication of Z89.1. This revision is necessary to ensure helmets comply with the most recent ANSI standard for industrial head protection when they are placed in service, and to allow for the use of the new designated Classes of ANSI approved head protection.

# Subsection (b)(1)(A)

Section 3381 does not require or allow the use of ANSI Z89.1-1997 approved Class C, E, or G helmets when only impact protection is needed. A new subsection (b)(1)(A) is proposed to specify that when there is no electric hazard and only impact protection is required, helmets placed in service after the proposal's effective date shall be ANSI approved Class C, E, or G helmets. This new subsection is necessary to allow, and specify, the use of approved Class C, E, or G helmets that comply with ANSI Z89.1-1997.

# Subsection (b)(1)(B)

Section 3381 does not require or allow the use of ANSI Z89.1-1997 approved Class E, or G helmets for protection from electric hazards less than 600 volts. A new subsection (b)(1)(B) is proposed to specify that when there is a risk of head injury from contact with conductors less than 600 volts, helmets placed in service after the proposal's effective date shall be ANSI approved Class E or G helmets. This new subsection is necessary to allow, and specify, the use of approved Class E or G helmets that comply with ANSI Z89.1-1997.

# Subsection (b)(1)(C)

Section 3381 does not require or allow the use of ANSI Z89.1-1997 approved Class E helmets for protection from electric hazards greater than 600 volts. A new subsection (b)(1)(C) is proposed to specify that when there is a risk of head injury from contact with conductors greater than 600

volts, helmets placed in service after the proposal's effective date shall be ANSI approved Class E helmets. This new subsection is necessary to allow, and specify, the use of approved Class E helmets that comply with ANSI Z89.1-1997.

### Subsection (b)(2)

Existing subsection (b)(2) specifies that helmets purchased on or before the effective date of the last revision of Section 3381 (i.e., January 12, 1995) shall be Class A or Class D and shall comply with ANSI Z89.1-1969. In addition to the 1996 standard, the proposal incorporates the following ANSI standards by reference: the 1981, 1986, and 1997 editions of ANSI Z89.1; and, ANSI Z89.2-1971, Safety Requirements for Industrial Protective Helmets for Electrical Workers, Class B. The proposal requires that helmets placed in service on or before the proposal's effective date shall comply with one of the referenced ANSI standards and shall be the appropriate ANSI designated Class of helmet. All of the referenced ANSI standards classify protective helmets according to the impact and electrical resistance requirements they are designed to meet. Although the letter used to designate a specific class of helmet may vary from one ANSI standard to another, each of the referenced ANSI standards uses the same performance requirements to classify helmets. Consequently, a helmet that complies with any one of the referenced ANSI standards will provide substantially the same level of protection as a helmet approved by any of the other standards, as long as the helmets are approved to provide resistance against the same hazard or hazards (i.e., impact, impact and low voltage, impact and high voltage). In making this determination, Board staff is relying on the physical requirements specified in each of the referenced ANSI standards, which include insulation resistance, impact resistance, penetration resistance, weight, flammability, and water absorption. Board staff compared each of these requirements for each referenced ANSI standard and determined they are substantially the same. This revision is necessary to allow for the use of any class of approved helmet that meets the appropriate performance requirements.

# Subsection (b)(2)(A)

Existing subsection (b)(2) specifies the use of Class A or Class D helmets that comply with ANSI Z89.1-1969. Consequently, the use of other ANSI approved helmets, which are designed to meet the same performance requirements for impact protection as Class A and Class D helmets, is not allowed. All Class A, B, C, D, E, and G approved helmets are designed and tested to meet the same criteria for impact resistance. A new subsection (b)(2)(A) is proposed to specify that when there is no electrical hazard and only impact protection is required, helmets placed in service on or before the proposal's effective date shall be ANSI approved Class A, B, C, D, E, or G helmets. This new subsection is necessary to allow the use of additional ANSI approved classes of helmets that provide the same level of protection from impact hazards as the Class A and Class D helmets that are currently specified.

# Subsection (b)(2)(B)

Existing subsection (b)(2) specifies the use of Class A or Class D helmets that comply with ANSI Z89.1-1969. The use of other ANSI designated classes of helmets, which are also designed to meet the same performance requirements for electrical resistance as Class A or Class D helmets, is not allowed. All Class A, B, D, E, and G approved helmets are designed and tested to meet the same criteria for resistance to low voltage electrical conductors. A new subsection (b)(2)(B) is proposed to specify that when there is a risk of head injury from contact with conductors less than 600 volts, helmets placed in service on or before the proposal's effective date shall be ANSI approved Class A, B, D, E, or G helmets. This new subsection is necessary to allow the use of additional ANSI approved classes of protective helmets, which provide the same level of protection from low voltage electrical hazards as the Class A and Class D helmets that are currently specified.

# Subsection (b)(2)(C)

Existing subsection (c) specifies the use of Class B helmets that comply with ANSI Z89.2-1971 for exposure to high voltage electric shock. The use of other ANSI designated classes of helmets, which are also designed to meet the same performance requirements for electrical resistance as ANSI Z89.2-1971 approved Class B helmets, is not allowed. ANSI revised and combined Z89.1-1969 and Z89.2-1971 into ANSI Z89.1-1981. All Class B and E approved helmets are designed and tested to meet the same criteria for resistance to high voltage electrical conductors. A new subsection (b)(2)(C) is proposed to specify that when there is a risk of head injury from contact with conductors greater than 600 volts, helmets placed in service on or before the proposal's effective date shall be ANSI approved Class B or E helmets. This new subsection is necessary to allow the use of additional ANSI approved helmets that provide the same level of protection from high voltage electrical hazards as the ANSI Z89.2-1971 approved Class B helmets that are currently specified.

# Subsection (c)

Existing subsection (c) specifies the head protection that shall be used for exposure to high voltage electric shock. The proposal revises and moves these requirements to subsection (b)(2)(C). Both existing Section 3381 and the proposed revision require that helmets comply with one of the ANSI standards for head protection that are incorporated into the Section by reference. The referenced ANSI standards specify that helmets shall be permanently marked to identify the manufacturer, ANSI designation (standard number and date) and class. The proposal incorporates similar language into subsection (c), which requires that helmets shall bear the original marking specified by the referenced ANSI standards for head protection. This revision is necessary to give guidance to the employer when purchasing or selecting head protection, and to ensure that the appropriate Class of ANSI approved helmet is worn when there is a risk of head injury.

#### **DOCUMENTS RELIED UPON**

None.

#### DOCUMENTS INCORPORATED BY REFERENCE

- 1. Safety Requirements for Industrial Head Protection, Z89.1-1969, American National Standards Institute (ANSI).
- 2. *Industrial Protective Helmets for Electrical Workers, Class B, Z89.2-1971*, American National Standards Institute (ANSI).
- 3. Requirements for Protective Headwear for Industrial Workers, Z89.1-1981, American National Standards Institute (ANSI).
- 4. *Protective Headwear for Industrial Workers Requirements, Z89.1-1986*, American National Standards Institute (ANSI).
- 5. Industrial Head Protection, Z89.1-1997, American National Standards Institute (ANSI).

These documents are too cumbersome or impractical to publish in Title 8. Therefore, it is proposed to incorporate the documents by reference. Copies of these documents are available for review Monday through Friday from 8:00 a.m. to 4:30 p.m. at the Standards Board Office located at 2520 Venture Oaks Way, Suite 350, Sacramento, California.

# REASONABLE ALTERNATIVES THAT WOULD LESSEN ADVERSE ECONOMIC IMPACT ON SMALL BUSINESSES

No reasonable alternatives have been identified by the Board and no reasonable alternatives identified by the Board or otherwise brought to its attention would lessen the impact on small businesses.

#### SPECIFIC TECHNOLOGY OR EQUIPMENT

This proposal will not mandate the use of additional specific technologies or equipment.

#### COST ESTIMATES OF PROPOSED ACTION

# Costs or Savings to State Agencies

No costs or savings to state agencies will result as a consequence of the proposed action, as it reflects national industry standards.

#### Impact on Housing Costs

The Board has made an initial determination that this proposal will not significantly affect housing costs.

# Impact on Businesses

The Board has made an initial determination that this proposal will not result in a significant, statewide adverse economic impact directly affecting businesses, including the ability of California businesses to compete with businesses in other states. The proposal reflects existing industry recognized standards.

# Cost Impact on Private Persons or Businesses

The Board is not aware of any cost impact that a representative private person or business would necessarily incur in reasonable compliance with the proposed action, as it reflects existing industry standards.

# Costs or Savings in Federal Funding to the State

The proposal will not result in costs or savings in federal funding to the state.

# Costs or Savings to Local Agencies or School Districts Required to be Reimbursed

No costs to local agencies or school districts are required to be reimbursed. See explanation under "Determination of Mandate."

# Other Nondiscretionary Costs or Savings Imposed on Local Agencies

This proposal does not impose nondiscretionary costs or savings on local agencies.

# DETERMINATION OF MANDATE

The Occupational Safety and Health Standards Board has determined that the proposed standard does not impose a local mandate. Therefore, reimbursement by the state is not required pursuant to Part 7 (commencing with Section 17500) of Division 4 of the Government Code because the proposed amendment(s) will not require local agencies or school districts to incur additional costs in complying with the proposal. Furthermore, this standard does not constitute a "new program or higher level of service of an existing program within the meaning of Section 6 of Article XIII B of the California Constitution."

The California Supreme Court has established that a "program" within the meaning of Section 6 of Article XIII B of the California Constitution is one which carries out the governmental function of providing services to the public, or which, to implement a state policy, imposes unique requirements on local governments and does not apply generally to all residents and entities in the state. (County of Los Angeles v. State of California (1987) 43 Cal.3d 46.)

The proposed standard does not require local agencies to carry out the governmental function of providing services to the public. Rather, the standard requires local agencies to take certain steps to ensure the safety and health of their own employees only. Moreover, the proposed standard

does not in any way require local agencies to administer the California Occupational Safety and Health program. (See <u>City of Anaheim v. State of California</u> (1987) 189 Cal.App.3d 1478.)

The proposed standard does not impose unique requirements on local governments. All state, local and private employers will be required to comply with the prescribed standard.

#### EFFECT ON SMALL BUSINESSES

The Board has determined that the proposed amendment may affect small businesses. However, no economic impact is anticipated, as it proposes a nationally recognized standard.

# **ASSESSMENT**

The adoption of the proposed amendments to this standard will neither create nor eliminate jobs in the State of California nor result in the elimination of existing businesses or create or expand businesses in the State of California.

# ALTERNATIVES THAT WOULD AFFECT PRIVATE PERSONS

No reasonable alternatives have been identified by the Board or have otherwise been identified and brought to its attention that would be more effective in carrying out the purpose for which the action is proposed or would be as effective and less burdensome to affected private persons than the proposed action.